

What is claimed is:

1. A system of providing an XML-based web page of a proxy server providing a home page of a web server for a web client of a non-PC information terminal, the system comprising:

an HTML-XML reconstruction for transforming an HTML document transmitted from the web server to generate XML and XSL documents in a pattern of data adapted to the web client of the non-PC information terminal;

an image reformat for reformatting an image in the web page in a pattern of data adapted to the web client of the non-PC information terminal corresponding to the XML and XSL documents generated by the HTML-XML reconstruction;

a pre-fetch for pre-fetching the web page received from the web server according to a probability condition based on a reference history of the web client;

a store for storing the pre-fetched web page, and the XML and XSL documents; and

an HTTP for connecting to the web client of the non-PC information terminal and the web server by use of an HTTP protocol to transfer the web page transmitted from the web server to the HTML-XML reconstruction, and providing the information stored in the store to the web client of the non-PC information terminal.

2. The system as claimed in claim 1, wherein the HTML-XML reconstruction comprises:

5 a syntactical normalization for normalizing the HTML document received from the HTTP to generate a normalized HTML;

a domain selection for receiving the HTML document normalized by the syntactical normalization, and extracting a domain-specific DTD with reference to a previously stored domain-specific DTD database;

10 a meaningful element selection for selecting a meaningful element by receiving a domain-adapted DTD generated by the domain selection and the normalized HTML document from the syntactical normalization to generate a domain-adapted XML;

15 an element value generation for generating an element value by inputting the meaningful element selected by the meaningful element selection, and generating the domain-adapted XML;

a device selection for receiving a device information of the web client from the web client to select the device adapted to the device information; and

20 a style generation for performing a style generation by use of the domain-adapted XML document produced from the element value generation to generate the device-adapted XSL document, if the device selection selects the device according to the device information.

3. The system as claimed in claim 2, wherein the device information comprises at least one of processor performance, memory capacity, and display resolution.

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4. A method of providing an XML-based web page of a proxy server providing a home page of a web server for a web client of a non-PC information terminal, the method comprising the steps of:

transforming an HTML document transmitted from the web server to generate an XML document adapted to a domain containing a content of the web page and an XSL document adapted to a device of the web client;

reformatting an image in the web page in a pattern of data adapted to the web client of the non-PC information terminal corresponding to the XML and XSL documents generated;

pre-fetching for the web page received from the web server according to a probability condition based on a reference history of the web client, and temporarily storing the pre-fetched web page; and

upon receiving a request of the web client of the non-PC information terminal, providing the XML and XSL documents, the image, and the web page to the web client of the non-PC information terminal.

5. The method as claimed in claim 4, wherein the step of generating the XML and XSL documents comprises the steps of:

normalizing the HTML document received from the web server
5 to generate the normalized HTML document;

selecting a domain in which the HTML document is contained,
with reference to a previously stored domain information
regarding to the normalized HTML document;

receiving the domain selecting information and the
10 normalized HTML document, and selecting a meaningful element for
generating an XML adapted to a corresponding domain;

generating an element value by inputting the selected
meaningful element to generate the XML adapted to a corresponding
domain; and

15 receiving a device information transferred from the web
client, performing a style generation using the XML document
adapted to the corresponding domain to generate an XML document
adapted to a corresponding device.

20 6. A storage medium for executing a method of providing an
XML-based web page of a proxy server providing a home page of a
web server for a web client of a non-PC information terminal, the
storage medium capable of being read by a digital processor, and
storing a program of commands executed by the digital processor,

the program being implemented by types, with the program comprising the steps of:

transforming an HTML document transmitted from the web server to generate an XML document adapted to a domain containing
5 a content of the web page and an XSL document adapted to a device of the web client;

reformatting an image in the web page in a pattern of data adapted to the web client of the non-PC information terminal corresponding to the XML and XSL documents generated;

10 pre-fetching for the web page received from the web server according to a probability condition based on a reference history of the web client, and temporarily storing the pre-fetched web page; and

15 upon receiving a request of the web client of the non-PC information terminal, providing the XML and XSL documents, the image, and the web page to the web client of the non-PC information terminal.